

July 2015

Hamilton County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 10 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Hamilton County economy.¹ These 10 sectors have a total direct output of approximately \$300 million and support 595.1 jobs in Hamilton County. Running the model for all 10 sectors simultaneously produces the following results:

Agriculture Contribution in Hamilton County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	595.1	28%	\$115,605,734	64%	\$300,111,699	165%
Indirect Effect	436.8	21%	\$25,235,948	14%	\$41,056,395	23%
Induced Effect	123.9	6%	\$8,246,787	5%	\$15,111,346	8%
Total Effect	1,155.8	55%	\$149,088,469	82%	\$356,279,440	196%

As shown in the above table, agriculture, food, and food processing supports 1,155.8 jobs, or 55% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$356 million, roughly 196% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 10 agriculture, food, and food processing sectors is approximately \$149 million, or 82% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 82% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Dairy cattle and milk production is the top employer in the agriculture industry with 328.5 employees. This table also shows the amount of jobs that are created by the agriculture industry in Hamilton County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Dairy cattle and milk production.....	328.5	\$142,548,262
Support activities for agriculture and forestry	233.7	\$15,609,992
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	148.0	\$89,375,149
Wholesale trade.....	88.2	\$16,344,934
Grain farming	59.0	\$48,142,256
All other crop farming.....	48.7	\$14,412,404
Securities and commodity contracts intermediation and brokerage	36.1	\$1,518,613
Monetary authorities and depository credit intermediation	27.3	\$4,265,359
Business and professional associations.....	24.3	\$351,613
Accounting, tax preparation, bookkeeping, and payroll services	21.5	\$845,428

The Dairy cattle and milk production industry directly contributes approximately \$143 million to Hamilton County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Dairy cattle and milk production.....	328.5	\$142,548,262
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	148.0	\$89,375,149
Grain farming	59.0	\$48,142,256
Wholesale trade.....	88.2	\$16,344,934
Support activities for agriculture and forestry	233.7	\$15,609,992
All other crop farming.....	48.7	\$14,412,404
Owner-occupied dwellings	0.0	\$5,016,101
Animal, except poultry, slaughtering.....	7.9	\$4,905,455
Monetary authorities and depository credit intermediation	27.3	\$4,265,359
Truck transportation.....	12.1	\$1,762,011

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Hamilton County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.